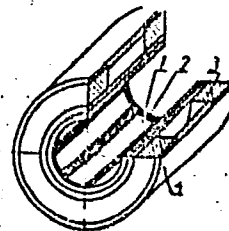


1 40251-66

ACC NR: AP6019847

high heat conductivity of metals capable of withstanding large specific loads. This type of bearing uses polyethylene protectors (see figure). The bushing 1 is made of brass or antifriction cast iron. Thrust rings 3 made of D16T are located along the edge of the bearing, and the entire bearing is enclosed in the tube 4 made from grade 20 steel. Flutes are milled along the bearing surface and filled with polymer 2. The polymer for this instance is PE-5000 polyethylene. The flutes were filled at a temperature of 220°C and aged for one minute. This type of metal-polymer bearing is much lighter than roller bearings and function under poor lubricating conditions. These units are relatively simple to manufacture and are inexpensive. Orig. art. 1 figure, 2 tables.



CODE: 13,11/ SUBM DATE: none

3/3 MLP

ACC NR: AT7001734

SOURCE CODE: UR/0000/66/000/000/0177/0187

AUTHOR: Severin, P. A.; Gorokhovskiy, G. A.

ORG: none

TITLE: New technological methods for manufacturing metal-polymer antifriction materials on the basis of polytetrafluoroethylene

SOURCE: Vsesoyuznoye soveshchaniye po pererabotke i primeneniyu plasticheskikh mass v narodnom khozyaystve. 1st, Sverdlovsk, 1964. Pererabotka plasticheskikh mass (Processing of plastics); trudy soveshchaniya. Moscow, Izd-vo Khimiya, 1966, 177-187

TOPIC TAGS: friction, metal friction, antifriction material, antifriction bearing, polytetrafluoroethylene, polymer ~~impregnated porous metal~~ *structure, antifriction metal, graphite*

ABSTRACT: Methods are described for the preparation of polytetrafluoroethylene-filled antifriction materials from porous metals. Filling of the porous metal was achieved by intrusion of specially prepared band-shaped polytetrafluoroethylene (PTFE) under optimum conditions of 400 kg/cm² pressure, 390C within 30 seconds into porous tin-bronze. Cylinders from porous tin-bronze were used for the experimental investigation of the antifriction properties of the PTFE-impregnated material.

Card 1/3

ACC NR: AT7001734

As the intrusion of the usual sheet PTFE into porous metals presented difficulties, three special band-shaped modifications of PTFE were developed at the Institute of Macromolecular Compounds of the AS UkrSSR:

- 1) "Structured" band material was obtained by turning or shaving cylinders prepared by pressing the fibrous powder of the common polymer; a layer-like orientation of fibers takes place during the pressing.
- 2) "Filled" band material, which is filled with colloidal graphite was the second modification. As mixing and subsequent sintering of PTFE and graphite cannot be applied with graphite amounts over 10%, baking of the mixtures in sealed molds, which produces an increase of internal pressure because of the expansion of PTFE grains, was attempted with positive results: the expanding polymer grains were welded and graphite was uniformly occluded. Bands were obtained as above.
- 3) "Secondary" band material was obtained by repeated disintegration and sintering of PTFE. The sintering was performed under self-produced pressure of the expanding polymer. The decreased mechanical strength of the band-shaped material indicates that intermolecular forces are weakened and therefore the filling of the capillary pores of the metal items can be achieved at lower pressures and in a shorter time. The rheological properties of all three materials were tested on specially constructed devices. It was found that the maximum flow speed was displayed by the filled modification with 5% colloidal graphite. The frictional properties of the PTFE-filled porous bronze specimens were studied at the

Card 2/3

ACC NR: AT7001734

Institute of Problems of the Science of Materials against lkh18N10T
steel. Orig. art. has: 7 figures.

[W. A. 28]

[BN]

SUB CODE: 11, 20/ SUBM DATE: 02Sep66/ ORIG REF: 004/ OTH REF: 013

Card 3/3

L 20409-66 EWT(m)/EWF(j)/T WW/DJ/RM

ACC NR: AP6008405

(A)

SOURCE CODE: UR/0374/66/000/001/0087/0092

AUTHOR: Gorokhovskiy, G. A.; Agulov, I. I.

61
B

ORG: Kiev Institute of Civil Aviation (Kiyevskiy institut grazhdanskoy aviatsii)

TITLE: The effect of orientation in crystallinity on the friction and wear of polytetrafluoroethylene

SOURCE: Mekhanika polimerov, no. 1, 1966, 87-92

TOPIC TAGS: polytetrafluoroethylene, friction, wear material, wear resistance, deformation rate, crystal property, crystalline polymer, internal stress, internal friction

ABSTRACT: The wear rate of polytetrafluoroethylene (PTFE) is determined by the character of loading. The variation of wear dependent on loading is determined by the variation of internal stress on the interface of PTFE. The variation of wear in respect to the sliding rate is determined by the variation of physical properties of the material in surface layers due to relaxation peculiarities of the deformation process. Resistance to wear of the PTFE depends on its phase composition. The minimum wear is defined by its crystallinity optimum, the value of which depends on the friction conditions. An increase of resistance to wear of PTFE is achieved through its preliminary oriented hardening. The tangential friction force originating when PTFE slides against steel involves two parts: the external friction

Card 1/2

UDC: 678:01.539.62

L 20409-66

ACC NR: AP6008405

force formed on the metal polymer interface, and the internal friction force determined by the resistance to deformation and the destruction of surface layers of a polymer. Orig. art. has: 4 figures. [Based on authors' abstract.] [RT]

SUB CODE: 4,20/ SUBM DATE: 29Apr65/ ORIG REF: 004/ OTH REF: 004/

Card 2/2

BK

ACC NR: AP6033648

SOURCE CODE: UR/0145/66/000/008/0086/0069

AUTHOR: Gorokhovskiy, G. A. (Candidate of technical sciences, Docent)

ORG: none

TITLE: Corrosion failure of steel parts working in contact with polymers

SOURCE: IVUZ. Mashinostroyeniye, no. 8, 1966, 86-89

TOPIC TAGS: corrosion rate, sea water corrosion, ball bearing, roller bearing, iron

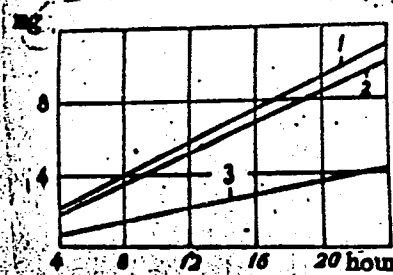
ABSTRACT: The effect of electrolytes on the corrosion failure of steel parts working in contact with polymers was investigated. This investigation supplements the results of B. A. Arkhangel'skiy (Nemetallicheskiye sudovyye podshipniki, Sudpromgiz 1957). The experimental procedure consisted of the determining the extent of corrosion of Armco steel collar step bearings (equipped with teflon washers) in aqueous 0.5% NaCl solution. The extent of corrosion was determined by electron microscopy. The surface electrode potential of the steel parts was determined, and the experimental results are presented graphically (see Fig. 1). It was found that the influence of electrochemical processes on the corrosion of the steel became especially noticeable at lower relative displacements of the steel-polymer interface. This paper was presented by Professor B. I. Kostetskiy, doctor of technical sciences, Kiev Institute of Civil Engineering.

Card 1/2

UDC: 620.191/193

ACC NR: AP6033648

Fig. 1. Wear of iron collar step bearings:
1 - iron specimens in 0.5% NaCl solution containing some $K_2Cr_2O_7$; 2 - iron specimens protected with teflon in 0.5% NaCl solution; 3 - iron specimens in 0.5% NaCl solution



Orig. art. has: 1 table and 3 graphs.

SUB CODE: 11/ SUBM DATE: 03Apr65/ ORIG REF: 011

Card 2/2

ACC NR: AP7004189 (A, N) SOURCE CODE: UR/0369/66/002/006/0698/0701
AUTHOR: Gorokhovskiy, G. A.; Bezruk, L. I.; Severin, P. A.; Dudnik, M. I.
ORG: Kiev Institute of Engineers of Civil Aviation (Kiyevskiy institut inzhenerov grazhdanskoy aviatsii)
TITLE: Effect of technological orientation of structure on the wear of polytetrafluoroethylene
SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 6, 1966, 698-701
TOPIC TAGS: polymer structure, polytetrafluoroethylene, wear resistance, chain polymer
ABSTRACT: The wear resistance of polytetrafluoroethylene (PTFE) is investigated as a function of the pattern of alignment of supramolecular formations, which pattern is determined by the technique of processing of the polymer into manufactured articles. The product of the polymerization of PTFE represents a white powder with a fibrous structure which is processed into manufactured articles by pressing and sintering at 360-370°C. The specimens tested were cylinders 30 mm in diameter and 40 mm in height, pressed by means of uniaxial compaction. Such a force field leads to an orientation of supramolecular structures which will persist during subsequent sintering owing to the extremely high viscosity of the PTFE melt. Two series of specimens were tested
Card 1/3

ACC NR: AP7004189

for wear. In the first series (Ic) the planes of working surfaces were at right angles to the pressing axis and in the second series (IIc), parallel (Fig. 1). It was found that specimens Ic (perpendicular) are represented by laminar formations, whereas specimens IIc (parallel) exhibit edges of these laminar formations. Further, specimens IIc

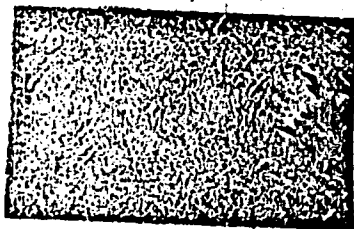


Fig. 1. Structure of PTFE films sliced at right angles (a) and parallel (b) to the pressing axis of the cylindrical sintered specimen (magnified 8000 times)

Card 2/3

ACC NR: AP7004189

wear out more intensely, which is apparently associated with the greater number of structural defects at such an orientation of the supramolecular formations. Similarly, a rise in temperature acts more destructively on specimens with a structure of the IIc type. This difference in wear resistance can be offset by adding colloidal graphite as a filler during sintering or by partially pulverizing the sintered polymer so as to partially destroy the molecular chains and thus to equalize the structure in the transverse and longitudinal directions. Orig. art. has: 5 fig.

SUB CODE: 11/ SUBM DATE: 18Jun66 / ORIG REF: 015/ OTH REF: 002

Card 3/3

GOROKHOVSKIY, G. M., Eng.

Ukraine - Building

Work experience of the Ukrainian Industrial Construction Trust in the field of rationalization and invention. Biul.stroi. tekhn. 10, No. 5, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

1. GOROKHOVSKIY, G. M. Eng.
2. USSR (600)
4. Construction Industry - Kiev
7. Regional meeting of inventors and workers with laborsaving ideas at Kiev, *Bul.stroi. tekhn.* 10 No. 6, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

GOROKHOVSKIY, G.M., inzhener.

Conference of efficiency experts and inventors of Kiev construction organizations. *Byul.stroi.tekh.* 10 no.13:35 Ag '53. (MIRA 6:10)

1. Ukrpromstroy ~~MEhTS~~ USSR.
(Kiev--Construction industry) (Construction industry--Kiev)

GOROKHOVSKIY, G.M., inzhener.

Consultation concerning the introduction of new types of construction
in village developments. Stroi.prom. 32 no.9:45 S '54. (MLRA 7:11)
(Construction industry) (Agricultural engineering)

L 23501-66 EWP(j)/EWP(k)/EWP(m)/T/EWP(t) IJP(c) RM/NW/DJ/JD/HW

ACC NR: AP6009614

(A)

SOURCE CODE: UR/0369/66/002/001/0105/0110

AUTHOR: Gorokhovskiy, G. A.; Agulov, I. I.

ORG: Kiev Institute of Civil Aviation Engineering (Kiyevskiy institut inzhenerov grazhdanskoy aviatsii)

TITLE: Changes in the structure of iron working in contact with polymers

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 1, 1966, 105-110

TOPIC TAGS: iron, polymer, friction, fine structure, ^{organic} lubricant, metal property, grain structure, crystal lattice defect, solid mechanical property

ABSTRACT: A study has been made of changes in the fine crystalline structure of iron working in contact with various polymers as poly(vinyl chloride), polytetrafluoroethylene, polystyrene, polyethylene, poly(methyl methacrylate), phenol-formaldehyde resin, natural rubber; and the relation between the structure and the properties of the iron surface layer has also been studied. The effect of polymers on the structure of iron was determined from the decrease coarseness of the block structure in the iron by x-ray structural analysis, and from calculation of the magnitude of microdefects ($\Delta a/a$) in the crystal lattice. Two series of experiments were carried out: 1) iron powder in contact with individual polymers (5%) was milled for 20 hr in a hull mill in air and in argon; 2) Armco iron specimens were rubbed against metal slide bars in 5% polymer solutions. The results of the study showed that the products of the mechanical degradation of polymers working in contact with iron increase submicroscopical

Card 1/2

L 23501-66

ACC NR: AP6009614

structural changes in the metal. These products reduce both the size of the block structure and the magnitude of microdefects in the crystal lattice. The degree of the structural changes depends on the surrounding gaseous medium. Individual polymers reduce the coarseness of the block structure in different degrees. Submicroscopic changes in the metal structure improve the mechanical properties of the metal by increasing the microhardness and smoothness of the working surfaces. It is stated in conclusion that polymers can be used as special lubricants in certain [unspecified] metal working processes. Orig. art. has: 5 figures. ³ [80]

SUB CODE: 11, ⁴ SUBM DATE: 02Jul65/ ORIG REF: 012/ OTH REF: 001/

Card 2/2 ¹⁰

SOV/85-58-9-23/33

AUTHOR: Gorokhovskiy, I. (Leningrad)

TITLE: Circular Saw on the I-38-I Electric Drill (Tsirkulyarnaya pila na elektrosverlilke I-38-I)

PERIODICAL: Kryn'ya rodiny, 1958, Nr 9, p 25 (USSR)

ABSTRACT: The author recommends the use of a circular saw mounted on the I-38-I electric drill in model-aircraft building. He gives a detailed description of the necessary attachment. There is 1 drawing.

Card 1/1

KRAVTSOV, I.N.; GOROKHOVSKIY, I.I., inzh.

Semiautomatic unit for ribbing pipes. Mont. i spets. rab. v
stroil. 23 no.10:19-20 0 '61. (MIRA 14:10)

1. Trest Yuzhtekhmontazh. (Pipe)

GOROKHOVSKIY, L.I.
GOROKHOVSKIY, L.I., inzh.

Efficient control of industrial traumatism. Leg. prom. 16 no.8:53
Ag '56. (MIRA 10:12)
(Labor and laboring classes--Accidents)

CATEGORY: CULTIVATED PLANTS: Grains. Leguminous Grains.
Tropical Cereals.
ABS. JOUR. REF ZHUR - BIOLOGIYA, NO. 4, 1959, No. 15616
AUTHOR: Gorokhovskiy, L.S.
INST.: Odessa Agricultural Institute
TITLE: Foliar Top-Dressing Corn
with Preparation of Silicate Bacteria

ORIG. PUBL. - Tr. Odessk. s.-kh. in-ta, 1958, 13, 77-82

ABSTRACT : Foliar top-dressing VIR-42
corn was carried out in hothouse conditions
by the method of Prof. V.G.Aleksandrov. The
method of conducting the experiment is descri-
bed in detail. The positive effect of the
preparation on the increment of vegetative
mass, increase in accumulation of ash elements
in the plant and hastening reproduction of
silicate bacteria in the soil was established.

CARD: 1/1

ALEKSANDROV, V.G., prof., doktor sel'skokhozyaysrvennykh nauk;
GOROKHOVSKIY, L.S., kand.sel'skokhozyaystvennykh nauk;
TERNOVSKAYA, M.I., kand.biologicheskikh nauk

Liquid preparation of silicate bacteria increases yields.
Zemledelie 23 no.9:61-64 S '61. (MIRA 14:12)

1. Odesk'iy sel'skokhozyaystvennyy institut.
(Field crops—Fertilizers and manures)
(Bacteria, Silicate)

L 63248-65 ENT(d)/ENT(m)/ENT(v)/ENT(t)/ENT(k)/ENT(L)/ENT(h)/ENT(1) Pf-4/Ps-4
 ACCESSION NR: AT5013044 TJP(c) UR/0000/64/002/000/0140/0146

JD/GS
 AUTHOR: Antipenkov, V. P. (Moscow); Goldyreva, Z. M. (Moscow);

Vsesoyuznaya konferentsiya po avtomaticheskuyu kontrol' i upravleniye
 metody elektricheskikh izmereniy; trudy konferentsiy, t. 2. Teoriya
 avtomaticheskikh informatsionnykh sistem. Sistemnyy aspekt avtomaticheskogo
 upravleniya i izmereniy. Avtomaticheskoye upravleniye i izmereniy
 measuring techniques, transmission systems, control and
 measurement systems. Automation of control and measurement
 systems of nonelectrical quantities. Novosibirsk: SNTs SSSR, 1964. 140-146

TOPIC TAGS: supervisory control, aluminum industry / ERA-800 supervisory
 control

Card 1/3

L 03248-00

ACCESSION NR: AT5013044

SUMMARY: An ERA-800 Soviet-made centralized control system for controlling the operation of the ERA-800 machine is described. The ERA-800 machine scans the 1000000 words that make up the text of the program and

in the cells which have been scanned and

Other facilities are designed for the control of the machine. The machine has these facilities for the control of the machine.

per sec supply voltage 100-200 V

1213

NR AT5013044

Orig. art has: 4 figures and 1 table.

ABSTRACTION none

RECEIVED: 17Nov64

ENCL: 00

SUM CODE: OP, IE

NO REF SOV: 000

OTHER: 000

Card 3/3

ACCOMMODATION NR: AT5009811

... logical elements are described AND, NOT,
... at an ...
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... at a ...
... elements ...
... elements ...
... elements ...
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ENC.

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GOROKHOVSKIY, P.K.

A conveyor for hot materials. Ogneupory 20 no.6:276-277 '55.
(MIRA 9:1)

1. Saved "Magnesit".
(Conveying machinery)

GOROKHOVSKIY, S., podpolkovnik militsii; KHRAPOV, I. mayor militsii

Changes in unified regulations. Za rul. 19 no. 12:25 D '61.
(MIRA 14:12)

(Traffic regulations)

GOROKHOVSKIY, S.; SOLDATOV, Yu.

Measures of high national importance. Avt. transp. 41 no.3:
48-49 Mr '63. (MIRA 16:4)

1. Gosudarstvennaya avtomobil'naya inspektsiya RSFSR.

(Motor vehicles—Inspection

GOROKHOVSKIY, S. A.

Spravochnik avtomobilista. [Automobilist's manual]. Moskva, Moskovskaya Pravda, 1950. 268 p. illus.

DLC: TL151.066

SO: Soviet Transportation and Communication. A Bibliography. Library of Congress Reference Department, Washington, 1952, Unclassified.

Gorokhovskiy, S.I.

SELEZNEV, L.; GOROKHOVSKIY, S.I. glavnyy inzhener.

Work experience of the Taganrog electric power network. Zhil.-kom.
khoz, 4 no. 4:17-18 '54. (MIRA 7:7)

1. Direktor Taganrogskey gorodskoy elektroseti (for Seleznev)
(Taganrog--Electric networks) (Electric networks--Taganrog)

GOROKHOVSKIY, S.I.; KITAYGORODSKIY, A.P.; PANIN, V.I., red.; BOBYLEVA,
L.V., red: izd-va.; LELYUKHIN, A.A., tekhn. red.

[Experience in the operation of the Taganrog municipal power
system] Opyt raboty taganrogskoi gorodskoi elektroseti. Moskva,
Izd-vo M-va kommun. khoz. RSFSR, 1958. 26 p. (MIRA 11:12)
(Taganrog--Electric power distribution)

GOROKHOVSKIY, Stepan Mefodiyevich; BOZHENKO, V.S., kand. tekhn.
nauk, nauchn. red.; TURANDINA, L.A., red.

[Balancing of ship propellers] Balansirovka grebnykh vintov.
Leningrad, "Sudostroenie," 1964. 142 p. (MIRA 17:5)

AUTHOR:

Gorokhovskiy, V. A.

SOV/72-58-10-8/18

TITLE:

The Flow of Glass-Mass in the Processing Channel With Direct Feed of the Machines With Glass-Mass (Potoki steklomassy v vyrabotochnom kanale pri neposredstvennom pitanii mashin steklomassoy)

PERIODICAL:

Steklo i keramika, 1958, Nr 10, pp 31-34 (USSR)

ABSTRACT:

The movement of glass-mass was investigated in a large tank furnace of the glass-works imeni Gor'kiy. The design of the furnace and the machine is given in figure 1. The investigation was carried out by means of a cerium-indicator (CeO_2), which was first applied by F. Bishop and later by the Ukrainskiy filial i teplotekhnicheskaya laboratoriya Instituta stekla (Ukrainian Branch and the Heat Engineering Laboratory of the Glass Institute), which used the more common polyrite. This contains CeO_2 up to 50 % as can be seen from the papers by V. V. Pollyak, R. I. Grichevskaya, P. I. Stabrovskaya (Refs 1, 2). The boundaries of the glass-mass-flow (Fig 2) were evaluated and are quoted for the machines 1 and 4 in table 1. The side boundaries of the flow are given in table 2.

Card 1/2

SOV/72-58-10-8/18
The Flow of Glass-Mass in the Processing Channel With Direct Feed of the
Machines With Glass-Mass

The dependence of the speed of the glass-mass on the depth is shown in figure 3. The results of the investigations of the glass-mass movement are presented in tables 3, 4 and 5. It was found that in the case of direct feed of the machines with glass-mass its flow extends up to a depth of 400 mm below the surface. The side boundaries are to be found in a distance of 500 - 650 mm from the walls of the channel. There are 3 figures, 5 tables, and 2 references, 1 of which is Soviet.

Card 2/2

GOROKHOVSKIY, V. A., Candidate of Tech Sci (diss) -- "Streams of glass in the productive channel of a vat glass furnace". Gor'kiy, 1959. 15 pp (Min Higher Educ USSR, Gor'kiy Polytech Inst im A. A. Zhdanov), 150 copies (KL, No 22, 1959, 114)

15(6)

AUTHORS: Dertev, N. K., Professor,
Gorokhovskiy, V. A.

SOV/72-59-1-2/16

TITLE: GlassMetal Flux in the Channel With a Consecutive Arrangement
of Machines (Potoki steklomassy v kanale pri posledovatel'nom
raspolozhenii mashin)

PERIODICAL: Steklo i keramika, 1959, Nr 1, pp 3 - 8 (USSR)

ABSTRACT: The test was carried out in the large trough furnace number 1
of the stekol'nogo zavoda imeni Gor'kogo (Glass Works imeni
Gor'kiy), for the section G-G and E-E (Fig 1) with glass
addition, which was marked by luminescence indicators. On
account of the data obtained (Tables 1, 2, and 4), the speed
curves of the glass metal motion in various channel depths
were constructed (Fig 2, Curves 1 and 2). The passage time
of the surface flux from section G-G to the shuttle of
machine 2 was established (Table 3, Fig 3). Moreover, the
glass metal flux from section V-V to section E-E (Figs 4 and
5, and Table 5) was tested. The test of the glass metal
movement at the channel end was supplemented by the test
of the flux at the beginning of the heating chamber of

Card 1/3

Glass Metal Flux in the Channel With a Consecutive
Arrangement of Machines

SOV/72-59-1-2/16

machine 2 (Section M-N, Fig 1 and Table 6). M. G. Stepanenko and I. O. Tomashevich obtained the same results by tests carried out in 1939. It was found that the glass metal moves in spiral turns (Fig 6). The glass quality of machine 2 is continuously inferior to that of machine 3 (Tables 7 and 8) which can be explained by the fact that machine 2 is fed by glass metal flux which moves along the wall and contains impurities. Conclusions: Machine 3 is fed by the inner part of the glass metal flux and produces high-grade glass. A counter flux cannot be seen with a consecutive arrangement of two machines, contrary to the results of other authors. The maximum speed of the glass metal flux can be observed in depths of 250 to 300 mm and 500 mm. The speed of the working flux from section G-G to the shuttle slot of machine 2 changes according to the depths, from 0.47 to 0.96 m/per hour. The glass metal movement in the heating chamber of machine 2 is very complicated. The editors ask their readers to participate actively in the discussion of this article and to make available the results of their observations and tests. There are 6 figures and 8 tables.

Card 2/3

Glass Metal Flux in the Channel With a Consecutive
Arrangement of Machines

SOV/72-59-1-2/16

ASSOCIATION: Kafedra silikatov Gor'kovskogo politekhnicheskogo instituta
(Chair of Silicates of the Gor'kiy Polytechnical Institute)

Card 3/3

15 (2)

AUTHOR:

Gorokhovskiy, V. A.

SOV/72-59-9-5/16

TITLE:

The Thermal Balance of the Processing Duct

PERIODICAL:

Steklo i keramika, 1959, Nr 9, pp 20 - 25 (USSR)

ABSTRACT:

The author of this paper and N. K. Dertev (Footnote 1) have explored in previous papers the flow of the glass mass in the processing duct of a great continuous glass-melting furnace of the Gor'kiy Glass Works. In order to verify the values thus obtained, the author stroke a thermal balance of the explored part of the processing duct, as shown in figure 1. In this connection he refers to the papers by O. K. Botvinkin (Footnote 2). V. A. Kuzyak, A. A. Sukhov, as well as D. B. Ginzburg and V. N. Zimin (Footnote 3). The measuring points of the heat flow and the temperatures are shown in figures 2, 3 and 4. The measuring- and computation results can be seen in table 1. The summarized thermal balance of the processing duct is shown in table 2; it shows only a small difference between debit and credit, which proves the correctness of the experimental data obtained. The striking of such a balance makes it possible to carry out thermotechnical calculations of the processing ducts

Card 1/2

The Thermal Balance of the Processing Duct

SOV/72-59-9-5/16

of glass-melting furnaces, and to choose the most efficient design for these ducts, which improves the degree of efficiency of the continuous glass-melting furnace, and secures an optimum performance of the vertical glass-stretching machines. There are 4 figures, 2 tables, and 4 Soviet references.

Card 2/2

GOROKHOVSKIY, V.I.

Work of Chita City Scientific Pharmaceutical Society. Apt. delo 11
no.2:77-78 Mr-Ap '62. (MIRA 15:5)
(CHITA--PHARMACEUTICAL SOCIETIES)

BOCHAROV, V.I.; GOROKHOVSKIY, V.I.; DANILOV, N.N.

Using a method of heating concrete with infrared rays.
Prom. stroi. 40 no.9:29-31 '62. (MIRA 15:11)
(Precast concrete)
(Infrared rays--Industrial applications)

GOROKHOVSKIY, V. M.

Dissertation: "Polarographic Research Into Complexes of Copper With Different Aromatic Acids and Phenols." Cand Chem Sci, Inst of General and Inorganic Chemistry, Acad Sci USSR, Moscow 1953.

W-30928

SO: Referativnyi Zhurnal, No. 5, Dec 1953, Moscow, AN USSR (~~W-30928~~)

CONFIDENTIAL V-M

CONFIDENTIAL V-M

GOROKHOVSKIY, V. M.

VASIL'YEV, A.M.; GOROKHOVSKIY, V.M.

Copper complexes with phthalic acid. Uch.zap.Kaz.un. 115 no.3:35-38
'55. (MLRA 10:5)

1.Kafedra analiticheskoy khimii.
(Copper organic compounds)
(Phthalic acid)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000516310012-2

GORKHOUSKIY V M

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R000516310012-2"

С. Д. ВУЛКОВИЧ В. М.

1. THE UNITED STATES OF AMERICA DO HEREBY DECLARE TO THE PEOPLES OF THE UNITED Kingdom OF Great Britain and Ireland and to the PEOPLES OF THE COMMONWEALTH OF SCOTLAND AND THE PEOPLES OF THE PRINCIPALITY OF WALLES AND THE CITY OF BERMOUTH ON THIS 15TH DAY OF SEPTEMBER 1938 THAT IN CONSIDERATION OF THE FACT THAT THE UNITED STATES OF AMERICA AND THE UNITED Kingdom OF Great Britain and Ireland and THE COMMONWEALTH OF SCOTLAND AND THE PRINCIPALITY OF WALLES AND THE CITY OF BERMOUTH ARE UNITED IN THE MAINTENANCE OF THE PRINCIPLES OF DEMOCRACY AND THE RIGHT OF SELF DETERMINATION OF PEOPLES AND THE FACT THAT THE UNITED STATES OF AMERICA AND THE UNITED Kingdom OF Great Britain and Ireland and THE COMMONWEALTH OF SCOTLAND AND THE PRINCIPALITY OF WALLES AND THE CITY OF BERMOUTH ARE UNITED IN THE MAINTENANCE OF THE PRINCIPLES OF DEMOCRACY AND THE RIGHT OF SELF DETERMINATION OF PEOPLES AND THE FACT THAT THE UNITED STATES OF AMERICA AND THE UNITED Kingdom OF Great Britain and Ireland and THE COMMONWEALTH OF SCOTLAND AND THE PRINCIPALITY OF WALLES AND THE CITY OF BERMOUTH ARE UNITED IN THE MAINTENANCE OF THE PRINCIPLES OF DEMOCRACY AND THE RIGHT OF SELF DETERMINATION OF PEOPLES AND THE FACT THAT THE UNITED STATES OF AMERICA AND THE UNITED Kingdom OF Great Britain and Ireland and THE COMMONWEALTH OF SCOTLAND AND THE PRINCIPALITY OF WALLES AND THE CITY OF BERMOUTH ARE UNITED IN THE MAINTENANCE OF THE PRINCIPLES OF DEMOCRACY AND THE RIGHT OF SELF DETERMINATION OF PEOPLES AND THE FACT THAT THE UNITED STATES OF AMERICA AND THE UNITED Kingdom OF Great Britain and Ireland and THE COMMONWEALTH OF SCOTLAND AND THE PRINCIPALITY OF WALLES AND THE CITY OF BERMOUTH ARE UNITED IN THE MAINTENANCE OF THE PRINCIPLES OF DEMOCRACY AND THE RIGHT OF SELF DETERMINATION OF PEOPLES AND THE FACT THAT THE UNITED STATES OF AMERICA AND THE UNITED Kingdom OF Great Britain and Ireland and THE COMMONWEALTH OF SCOTLAND AND THE PRINCIPALITY OF WALLES AND THE CITY OF BERMOUTH ARE UNITED IN THE MAINTENANCE OF THE PRINCIPLES OF DEMOCRACY AND THE RIGHT OF SELF DETERMINATION OF PEOPLES AND THE FACT THAT THE UNITED STATES OF AMERICA AND THE UNITED Kingdom OF Great Britain and Ireland and THE COMMONWEALTH OF SCOTLAND AND THE PRINCIPALITY OF WALLES AND THE CITY OF BERMOUTH ARE UNITED IN THE MAINTENANCE OF THE PRINCIPLES OF DEMOCRACY AND THE RIGHT OF SELF DETERMINATION OF PEOPLES AND THE FACT THAT THE UNITED STATES OF AMERICA AND THE UNITED Kingdom OF Great Britain and Ireland and THE COMMONWEALTH OF SCOTLAND AND THE PRINCIPALITY OF WALLES AND THE CITY OF BERMOUTH ARE UNITED IN THE MAINTENANCE OF THE PRINCIPLES OF DEMOCRACY AND THE RIGHT OF SELF DETERMINATION OF PEOPLES AND THE FACT THAT THE UNITED STATES OF AMERICA AND THE UNITED Kingdom OF Great Britain and Ireland and THE COMMONWEALTH OF SCOTLAND AND THE PRINCIPALITY OF WALLES AND THE CITY OF BERMOUTH ARE UNITED IN THE MAINTENANCE OF THE PRINCIPLES OF DEMOCRACY AND THE RIGHT OF SELF DETERMINATION OF PEOPLES AND THE FACT THAT THE UNITED STATES OF AMERICA AND THE UNITED Kingdom OF Great Britain and Ireland and THE COMMONWEALTH OF SCOTLAND AND THE PRINCIPAL

1. The purpose of this document is to provide information on the status of the project. The project is currently in the planning stage and is expected to be completed by the end of the year. The project is being funded by the Department of Defense and is being managed by the Office of the Secretary of Defense. The project is being implemented by the Joint Chiefs of Staff and is being coordinated with the Department of State. The project is being implemented by the Joint Chiefs of Staff and is being coordinated with the Department of State. The project is being implemented by the Joint Chiefs of Staff and is being coordinated with the Department of State.

"APPROVED FOR RELEASE: 08/25/2000

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CIA-RDP86-00513R000516310012-2"

GOROKHOVSKIY, V.M.

USSR/Analytical Chemistry. General Topics

G-1

Abs Jour : Referat Zhurnal - Khimiya, No 6, 1957, 19492

Author : V.M. Gorokhovskiy, Yu.Yu. Semitov

Inst : Kazan' University

Title : High Frequency Titration of Acids.

Orig Pub : Uch. zap. Kazansk. un-ta, 1956, 116, No 5, 97-102.

Abstract : The applicability of Q-meters and F-meters to the high frequency titration of a series of inorganic and organic acids at low concentrations and the possibility of step-by-step titration of polybasic acids were studied. It was established at the titration with a Q-meter (at 100 megacycles per second) that the titration curve of a mixture of HCl and CH_3COOH (2 - 4 ml of 0.01 n. HCl + 2 ml of 0.01 n CH_3COOH) has two points of inflection, the first of which answers the neutralization of H^+ of hydrochloric acid, and the second of which answers the neutralization of H^+ of acetic acid. At the determination of the concentration of HCO_3^- in natural waters, a V-shaped curve with a sharp inflection at

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USSR/Analytical Chemistry. General Topics

G-1

Abs Jour : Referat Zhurnal - Khimiya, No 6, 1957, 19492

the equivalence point was obtained. The relative error (RE) is 0.2 - 0.5% (it is 0.5 - 1.5% at the titration with methyl orange). The minimum determinable concentration of strong and medium-strong acids is about 10^{-4} M. RE is 2 - 3%. The titration of H_2SO_4 (concentration < 0.01 g-equ/l) and alkalis ($\sim 3 \times 10^{-3}$ n. solutions) was carried out with a F-meter (at 26 megacycles per second). At the titration of CH_3COOH , H_3PO_4 and sulfo-salicylic acid with 0.1031 n. solution of KOH, the RE is 2, 3 - 10 and 3.5 - 5% correspondingly. A conclusion concerning the possibility of step-by-step titration of polybasic acids with $K > 10^{-10}$ was arrived at.

Card 2/2

- 16 -

569

AUTHORS: Gorokhovskiy, V.M. and Levin, Ya. A.

TITLE: Polarographic Study of Cadmium Complexes with Some Aromatic Hydroxy-acids and Phenols. (Polyarograficheskoe Isuchenie Kompleksov Kadmiya s Nekotorymi Aromaticheskimi Oksikislottami i Fenolami).

PERIODICAL: "Zhurnal Neorganicheskoy Khimii" (Journal of Inorganic Chemistry) Vol.11, No.2, pp.343-348. (U.S.S.R.). 1957

ABSTRACT: The present investigation was undertaken with the object of finding the influence of the structure of the organic addendum on the value of the instability constant, complex formation between cadmium and various organic compounds was studied. The normal type of visual polarographic installation was used, oxygen was removed by passing hydrogen and the Cd^{2+} concentration was 0.0015 mol. The polarographic reduction of cadmium from solutions of salicylic, sulphosalicylic, n-aminosalicylic, guaiacolsulphonic acid and pyrocatechin in the pH range 5-11 was investigated, the compositions and instability of the complexes being determined. Cadmium was shown to form with aromatic hydroxyacids and in weakly acid solution relatively unstable complexes in which the metal ion is connected through the carboxyl group; at high pH values stable cyclic complexes are formed in which the metal ion is attached to the carboxylic and hydroxyl groups.

There are 11 references, 7 of them Russian. 5 figures, 1 table.
Kazan State University imeni V.I.Ulyanova-Lenina. Rec'd. 12 Oct. 1956.

Card 1/1

GOROKHOVSKIY, V. M.

78-3-17/35

AUTHORS: Gorokhovskiy, V. M. and Maksyutova, G. G.

TITLE: Investigation of the Composition of Complex Compounds
by the High-Frequency Titration Method. (Issledovaniye
sostava kompleksnykh soyedineniy metodom vysokochasto-
tnogo titrovaniya)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1957, Vol.II, Nr.3,
pp. 606-610. (USSR)

ABSTRACT: High-frequency titration was applied to the study of
complex formation by copper, iron, cobalt and nickel
with salicylic, sulphosalicylic, p-aminosalicylic acids
and pyrocatechin. The suitability of the method for
the copper and iron complexes was demonstrated, and some
mechanisms are suggested for the complex-formation
reactions for these metals. No complex-formation was
found to occur with nickel and cobalt and the aromatic
hydroxy acids. There are 3 figures, 2 tables and 11
references, 6 of which are Slavic.

Card 1/2

Investigation of the Composition of Complex Compounds by the
High-Frequency Titration Method. 78-3-17/35

ASSOCIATED: Kazan' State University, im. V.I. Ul'yanov-Lenin (Kazanskiy ordena
Trudovogo Krasnogo Znameni Gosudarstvennyy Universitet
im. V. I. Ul'yanova-Lenina.)

SUBMITTED: October 12, 1956.

AVAILABLE: Library of Congress.

Card 2/2

GOROKHOVSKIY, V.M.; SAMITOV, Yu.Yu.; TREMASOV, N.V.

High-frequency titration by the method of heterodyne pulsations.
Izv. vys. ucheb. zav; khim. i khim. tekhn. 3 no. 5:805-809 '60.
(MIRA 13:12)

1. Kazanskiy gosudarstvennyy universitet imeni V.I. Ul'yanova-Lenina. Kafedra analiticheskoy i organicheskoy khimii.
(Conductometric analysis)

GOROKHOVSKIY, V.M.; LEVIN, Ya.A.

Determining the presence of fog-promoting constituents in the 5-methyl-7-hydroxy-1,3,4-triazaindolizine photographic stabilizer. Zhur.nauch.i prikl.fot. i kin. 6 no.5:385-386 S-0 '61.

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo kinofotoinstituta, g. Kazan'.

(Photographic emulsions)
(Triazolopyramidine)

L 12363-63

EWI(m)/BDS

S/081/63/000/005/011/075

AUTHOR: Gorokhovskiy V. M., Gorkhovskaya, V. I. and Nigmatullin, R. S. 50

TITLE: The oscillographic polarography of some organic compounds

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 5, 1963, 83, abstract 5B597, Teoriya i praktika polyarogr. analiza, "Shtiintsa", 1962, 63-67)

TEXT: With the aid of the oscillographic polarograph with triangular envelopment, oscillographic polarograms (OP) of photographic reagents were obtained with dropping Hg electrode: hydroquinone (I), quinone (II), pyrocatechol (III), resorcinol (IV), hydroxyphenylglycine (V), o- (VI), n- (VII), and m-aminophenols (VIII), methyl VII (IX), 2-aminobenzthiezois (X) and its derivatives, 5,7 diamino-2,3,4,6-tetrazoindolycine (XII) and 5,7 dimethyl-2,3,4-triazoindolycine (XIII). A study was made of the dependence of the height of the peak i_{π} on the rate of scan of potential V in the 30-350 volt/sec interval for I and X, and also the dependence of potential of the peak E_{π} on pH and the magnitude of the potential difference of anode and cathode peaks for I, II, III, VII, XI. I, III, V, VI, VII and IX are reduced reversibly and III and VIII irreversibly. The OP of compound X contains two anode-cathode peaks ($E_{\pi} = 1.1 - 1.2$ v vs SCE) and OP of alkaline solutions

Card 1/2

L 12363-63

S/081/63/000/005/011/075 0

The oscillographic polarography

of X and its derivatives contain new peak ($E_{\gamma} = 0.78$ v). It is noted that i_{γ} of the latter does not depend on v. There are no sharp changes in the capacity current on the OP of compound XI and its derivatives with changes of the potential, but on the OP of compounds XII and XIII such phenomenon is observed. The article discusses the connection between the demonstrated capabilities and the appearance of the reversible anode-cathode peaks. A.E.

[Abstractor's note: Complete translation]

Card 2/2

LEVIN, Ya.A.; KUKHTIN, V.A.; GOROKHOVSKIY, V.M.

Effect of structural factors on the stabilizing action of purines.
Zhur.nauch.i prikl.fot.i kin. 7 no.5:388-389 S-0 '62.

(MIRA 15:11)

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo kinofotoinstituta,
Kazan'.

(Photographic emulsions) (Purines)

GOROKHOVSKIY, V.M.; KUKHTIN, V.A.; LEVIN, Ya.A.; BORIN, A.V.; KISELEVA, I.P.;
~~VARZANOSOVA, T.P.~~

Studying the stabilizing effect of some derivatives of 1,3,4 -
triazaindolizine. Trudy NIKFI no.46:26-30 '62.

(MIRA 18:8)

GOROKHOVSKIY, V.M.; TAMARCHENKO, L.M.

Synthesis and study of indazolone derivatives as color components.

Trudy NIKFI no.46:76-82 '62.

(MIRA 18:8)

GOROKHOVSKIY, V.M.; ZOTIKOVA, S.V.; ARTISHEVSKAYA, I.F.

Complexometric determining of silver in color films. Trudy NIKFI
no.46:83-84 '62. (MIRA 18:8)

GOROKHOVSKIY, V.M.; KUZOVENKO, N.M.

Oscillographic polarography of some developing agents. Zhur.nauch. i prikl.
fot. i kin. 8 no.2:149-151 Mr-Apr '63. (MIRA 16:3)

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo kinofotoinstituta, T
Kazan'.
(Photography--Developing and developers) (Polarography)

GOROKHOVSKIY, V.M.; LEVIN, Ya.A.; KISELEVA, I.P.; GALIMOVA, A.M.

Relation between the desensitization action and the height of the oscillographic peak of desorption of the homologues of 4-oxo-6-methyl-1,2,4 triazolo-(2,3-a) pyrimidine. Zhur. nauch. i prikl. fot. i kin. 8 no.3:205-206 My-Je '63.

(MIRA 16:6).

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo kinofoto-institut, Kazan'.

(Triazolopyrimidine)
(Photographic emulsions)

GOROKHOVSKIY, V.M.

Quantitative interpretation of symmetrical electric profiling data.
Razved. i okh. neдр. 30 no.6:49-50 Je '64. (MIRA 17:10)

1. Yuzhnyy gosudarstvennyy institut po proyektirovaniyu vodokhoz-
yaystvennogo i meliorativnogo stroitel'stva.

GOROKHOVSKIY, V.M.; ISMAGILOVA, F.K.

Oscillopolarographic determination of Cl^- , Br^- , I^- ions on
a silver electrode. Zhur. anal. khim. 21 no. 1287-83 '66
(MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut,
Kazanskiy filial.

L 45809-66 EWT(1)/T IJP(c)

ACC NR: AR6023273

SOURCE CODE: UR/0058/66/000/003/D123/D123

AUTHOR: Gorokhovskiy, V. M.; Kuzovenko, N. M.

TITLE: Oscillographic polarography of certain developers

SOURCE: Ref zh. Fizika, Abs. 3D1021

REF. SOURCE: Tr. Vses. n.-i. kinofotoin-ta, vyp. 52, 1965, 17-22

TOPIC TAGS: volt ampere characteristic, photographic chemical, polarographic analysis, oscillograph

ABSTRACT: By obtaining polarographic voltage-current curves on an oscilloscope screen with the aid of multiple symmetrical triangular voltage pulses, the authors investigated with a mercury-drop electrode a series of developing and nondeveloping substances and have shown that the former (hydroquinone, pyrocatechol, n-aminophenol, metol) give symmetrical anode-cathode peaks, and the latter (resorcin, m-aminophenol) do not give such peaks. It is shown that for hydroquinone the heights of both peaks, and for quinone the heights of the cathode peak, are proportional to the concentrations of these substances. Gradual oxidation of the developers as the solutions are stored has

Cord 1/2

L 45809-66

ACC NR: AR6023273

caused a change in the height of the peaks and appearance of new peaks, the character of the changes depending on the time of aging, concentration, and pH of the solution.
A. Kartuzhanskiy. [Translation of abstract]

SUB CODE: 14,07

LS
Card 2/2

L 45808-66

ACC NR: AR6023274

SOURCE CODE: UR/0058/66/000/003/D123/D123

AUTHOR: Kuzovenko, N. M.; Gorokhovskiy, V. M.

TITLE: An investigation of the shelf life of developers by the method of oscillographic polarography

SOURCE: Ref zh. Fizika, Abs. 3D1022

REF. SOURCE: Tr. Vses. n.-i. kinofotoin-ta, vyp. 52, 1965, 23-35

TOPIC TAGS: photographic chemical, polarographic analysis, oscillograph, nonmetal aging, oxidation, photographic property

ABSTRACT: Using the experimentally obtained change in the character of anode-cathode peaks of oscillographic polarograms during the storage and gradual oxidation of developers (see Abstract 3D1021 -- Acc. Nr. AR6023273) the authors have investigated the shelf life of hydroquinone, pyrocatechol, phrogallol, o-and n-aminophenol, and metol developers having identical formulas and molar composition. Hypotheses are advanced regarding the connection between the observed additional peaks and the photographic properties of the investigated developers. A. Kartuzhanskiy. [Translation of abstract]

SUB CODE: 14,07

Card 1/1 LS

LITVINOV, M.R., inzh.; SHOR, R.M., inzh.; GOROKHOVSKIY, Ya.Ye.

Section for the continuous production of patent leather. Kozh.-obuv.
prom. no.11:35-37 N '59. (MIRA 13:3)
(Leather industry)

GOROKHOVSKIY, Ya.Yu. [Horokhova's'kyi, IA. IU.]; RITSLIN, V.A. [Rytelin,
V.A.]; FRIDMAN, L.A.

Automatic device for flaying and piling of hides. Lsh. prom.
no.2:60-61 Ap-Je'64 (MIRA 17:7)

GOROKHOVSKIY, Ye.L., dots.

Strict economy is the principle of socialist management; work practices in the shale industry. Izv.vys.ucheb.zav.; gor.zhur. no.6: 55-59 ' 58. (MIRA 12:1)

1, Leningradskiy gornyy institut.
(Coal mines and mining--Costs) (Mine management)

GOROKHOVSKIY, Y.L.

Coal mining industry of the U.S.S.R. during the first five-year
plan (1928-1932). Zap. LKI 34 no.3:65-78 '58. (MIRA 12:4)
(Coal mines and mining)

GOROKHOVSKIY, Ye.L.

Coal mining industry of the U.S.S.R. during the second and third
five-year plans (1933-1940). Zap. IGI 34 no.3:79-98 '58.

(MIRA 12:4)

(Coal mines and mining)

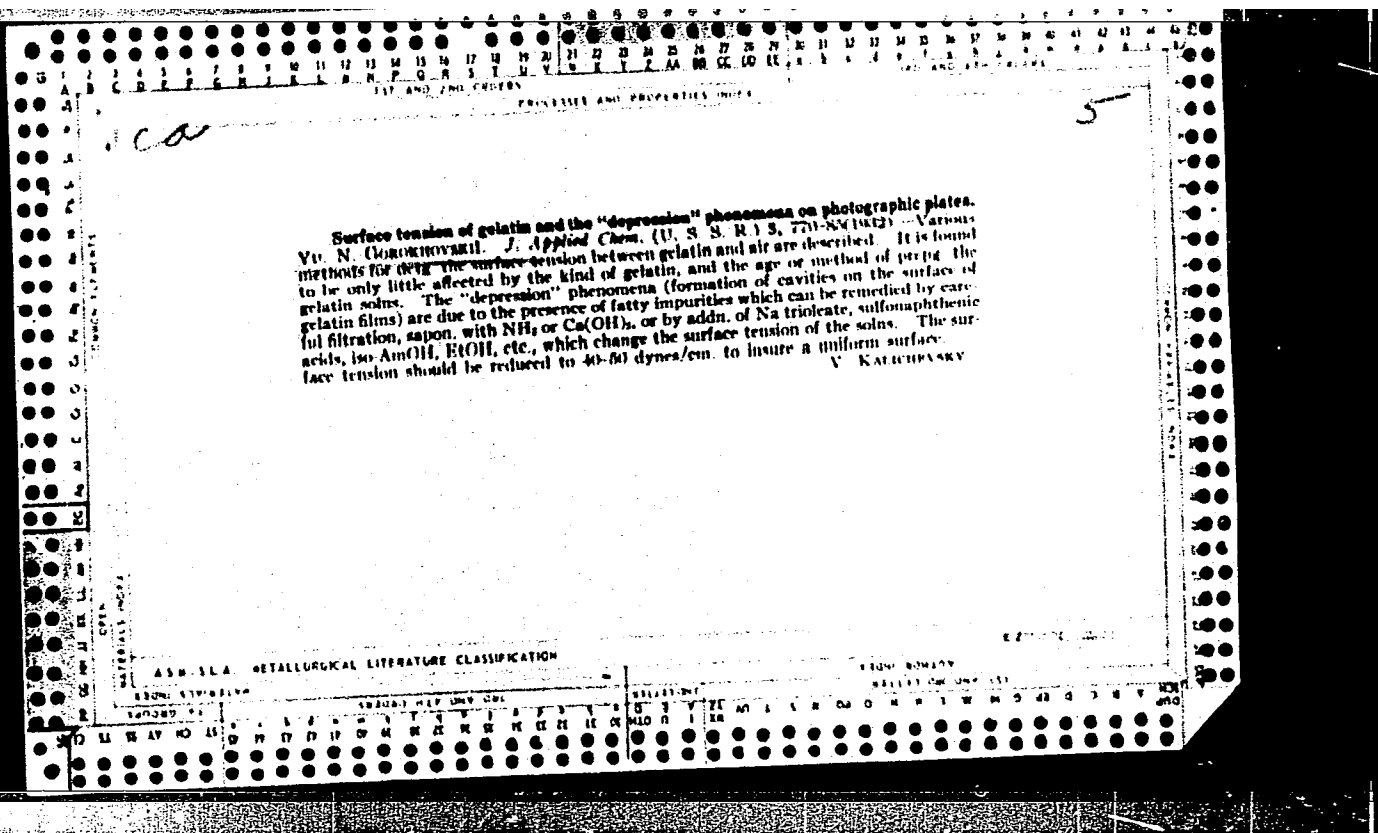
GOROKHOVSKIY, Yu., doktor khimicheskikh nauk, prof.

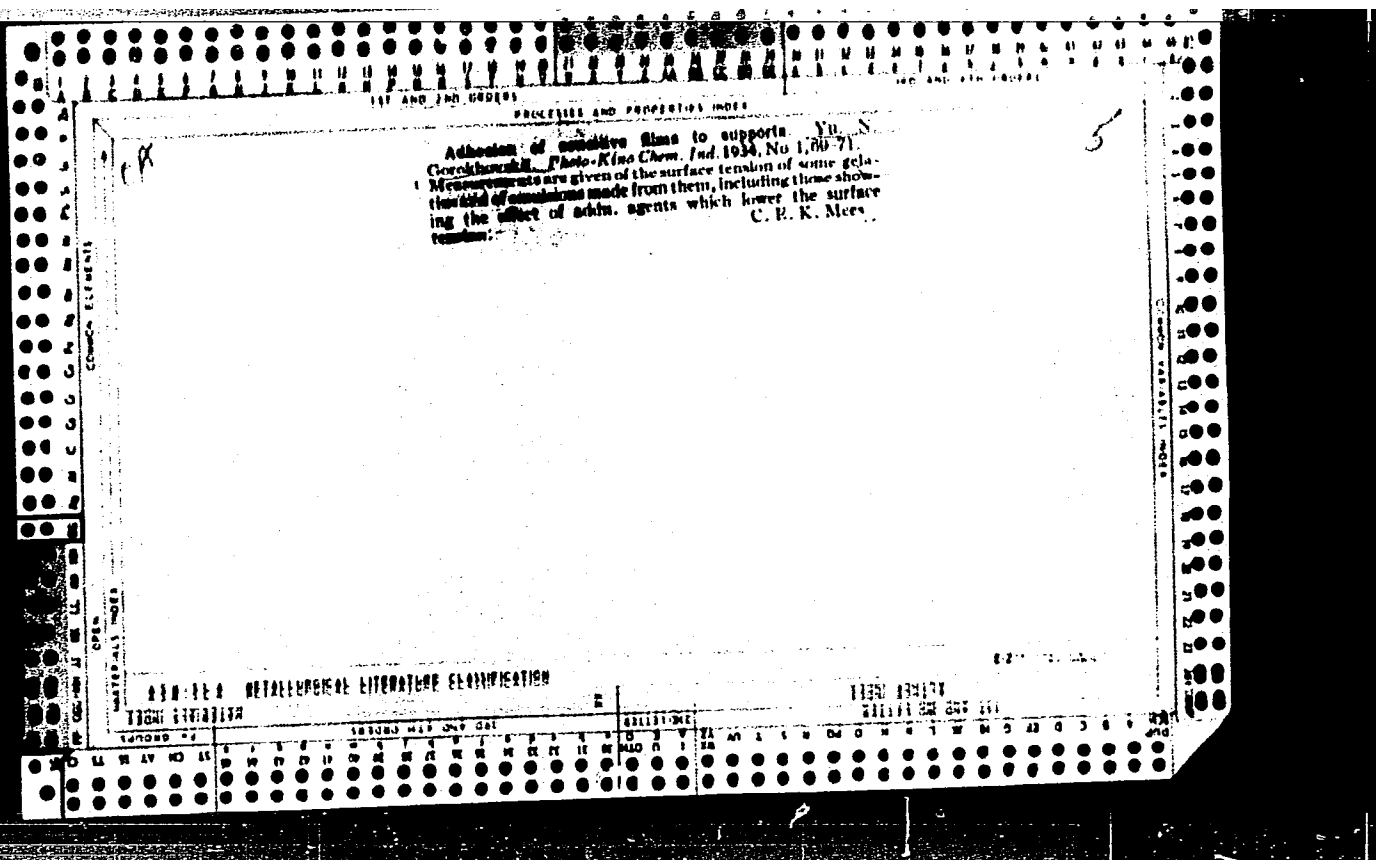
Aids of science. Sov.foto 22 no.5:37 My '62.

(MIRA 15:5)

(Photography--Scientific applications)

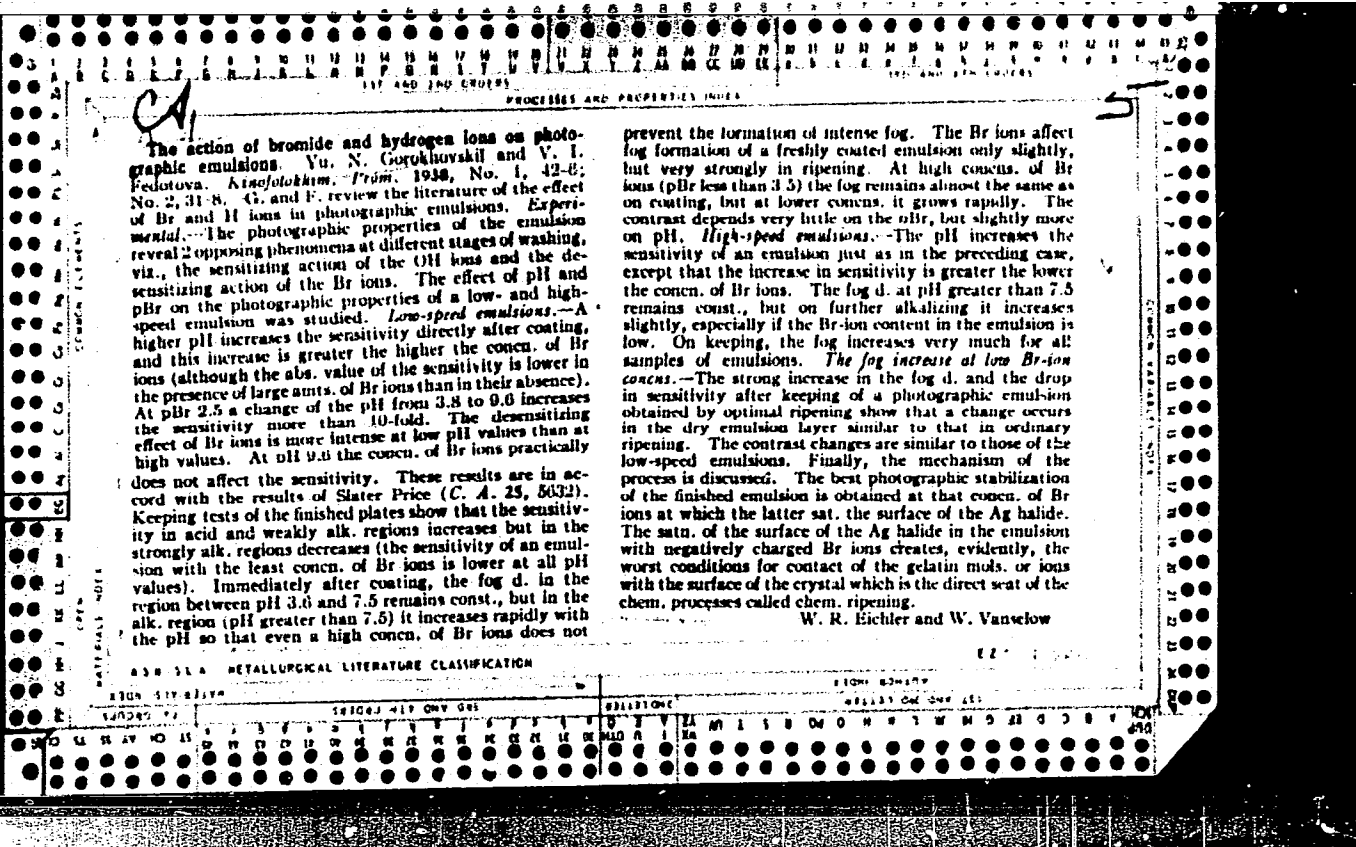
(Motion pictures--Study and teaching)





PROCESSING AND PROPERTIES INDEX																																																																													
MATERIALS INDEX													PROCESSING AND PROPERTIES INDEX																																																																
<p>Determination of spectral sensitivity of photographic emulsions in absolute energy units. Yu. N. Gorskii and E. Valyashko. <i>Tech. Phys. U. S. S. R.</i> 9, 1225-1227 (1965) (in German).—Spectral sensitivity curves in abs. energy units of the following emulsions are presented: Perutz Persenno, Ilford Monarch, Photochem. Trust Isopanachromatic, Ilford Hypersensitive, Ilford Soft Gradation, Agfa Infrared 730, Agfa Infrared 810, Ilford Infrared, Eastman Infrared and Wratten Panchromatic.</p> <p>J. H. Webb</p>																																																																													
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<p>CA</p> <p>Stability of sols of silver iodide. I. P. Protas and Yu. N. Odroboshchik. <i>J. Phys. Chem. (U. S. S. R.)</i> 7, 354-62 (1953).—The relative av. diam. of AgI sol particles over the range from 5×10^{-3} to 5×10^{-2} M were found by the light-scattering method with an accuracy of $\pm 10\%$, and these data used to det. the stability of AgI sols in presence of excess Ag or I ions. The turbid. point lies between 5×10^{-3} and 5×10^{-2} M excess Ag⁺ for various total Ag⁺ and I⁻ concns. and the max. stabilities were found over the range 5×10^{-3} to 5×10^{-2} Ag and 2×10^{-3} to 1×10^{-2} I⁻. The effects of Ba(NO₃)₂, Al(NO₃)₃ and Th(NO₃)₄ are about the same as those of excess AgNO₃ or KI, and the authors conclude that in the main the stability changes can be explained chiefly by adsorption phenomena. From the strong effect of Th⁴⁺ AgI became a positively charged sol, there being minima of sol stability at $\text{pH} \approx 4.5$ and 1.5. Measurements of the ζ potential of the sols in the presence of salts show that in the region of ready coagulation the ζ potential is nearly zero.</p> <p>F. H. Rathmann.</p>																																																											
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The optical sensitization of photographic emulsions. I. Yu. N. Gorokhovskii, A. A. Kryukov and V. I. Fedotova. *J. Phys. Chem.* (U. S. S. R.) 14, 180-7 (1940); cf. C. A. 33, 6737.—The electrometric titration of acid and basic sensitizing dyes is described. Adsorption measurements reaffirm the influence of increasing bromide-ion concn. in increasing the adsorption of basic, and in decreasing the adsorption of acid, dyes. II. Yu. N. Gorokhovskii, A. Ya. Smirnov and V. I. Fedotova. *Ibid.* 1948-44.—The degree of optical sensitization varies with the method of pptn. and with the halide or halide mixt. employed. The unique influence of AgI in reducing the sensitization by erythrosin, pinacyanol and cryptocyanine is emphasized. W. R. Eichler and J. Spencer

GOROKHOVSKIY, Yu. N.; SMIRNOV, A. Ya.; FEDOTOVA, V. I.

Scientific Photography Laboratory, Leningrad State Optical Institute, (-1939-).

"Research on the Optical Sensitization of Photographic Emulsions."; Part II.

"The Spectrum Properties of the Emulsion, Composed of Various Silver Halides."

Zhur. Fiz. Khim., Vol. 14, No. 2, 1940.

ca

Spectral sensitivity of photographic layers in the ultra-violet region of the spectrum. I. I. Breido and Yu. N. Gorokhovskii. — *Compt. rend. acad. sci. U. R. S. S.* 28, 702-6 (1940) (in German). — Curves of spectral sensitivity for 5 different kinds of photographic layers prepri. by the Research Institute for Cinematography and Photography have been obtained by use of a method developed previously for the visible and infrared regions (Gorokhovskii and Valysakho, C. A. 31, 4012¹). The maxima of the curves are all around 4500 Å. The sensitivity decreases rapidly on the side of long wave lengths; it decreases in the ultraviolet region less rapidly. Some observations have also been made concerning the connection between the absorption and sensitivity of photographic layers.
H. G. Trimmer

ASTM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SIGNATURE		SHELF	
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89	90	91	92
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97	98	99	100

PA

Sensitizing & Intensity

771.534.541

492
Additivity of the Effects of Radiations of Different Wavelengths. Y. N. GONOS.
HOVSKEY. J. Tech. Phys. U.S.S.R., 13, 345-351, 1943.—Measurements of sensitivity made on four types of emulsion with a fixed exposure of 0.5 seconds confirm VAN KREVELD's law of additivity in the case of simultaneous exposure to (two) different radiations in the interval 450-850 m. Deviations exceeding possible experimental error were found in the simultaneous action of continuous groups of radiations, the deviation being greater as the two spectral bands employed became more separated. Thus it seems impossible to establish a strict relation between total sensitivity and the individual sensitivities to different radiations.
K.J.C. (based on S. et I.P.).

1747

BREYDO, I. I.; GOROKHOVSKIY, Yu. N.

Lab of Scientific Photography, State Optical
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"Studies on the Optical Sensitizing of Photographic
Emulsions - III. The Effect of Optical Sensitizing
on the Natural Sensitivity of Photographic Emulsions."

Zhur. Fiz. Khim., Vol. 17, No. 1, 1943

BR-52059019

The concentration effect in the case of optical sensitization. Yu. N. Gornukhovskii. *Dokl. Akad. Nauk SSSR*, 196, 273 (1963) (in English). --Various dyes, namely, erythrosin (I), phencyanin chloride (II), 2,2',4'-triethyl-3,4',4''-dibenzothiacynanine bromide (III), 2,2'-dimethyl-8-ethylthiacynanine bromide (IV), 2,2'-dipropyl-10-methoxythiatricyanine bromide (V), have similar effects when applied to lantern plates of Russian manuf. and to *Spectral plates blue rapid Agfa* at various concns. The basic dyes (II, III, IV, V) were applied in a solvent consisting of 3 parts H₂O and 2 parts EtOH. Tabulated data and graphs show spectral sensitivity as a function of wave length for plates treated with dye solns. of molar concn. varying from 7×10^{-7} to 10^{-5} . Greatest sensitization was observed at about 10^{-6} molar concn. With increasing concn. up to about 10^{-4} molar, the following changes in sensitivity were observed: with I little change either in the shape of the spectral sensitivity curve or in the position of the sensitivity max., with II and V increase in the abs. value of the sensitivity to the β (shorter) as compared with the α (longer) wave length band (Vogel effect) but without much change in the position of either sensitization band (α and β), with III and IV a widening of the sensitization band toward both shorter and longer wave lengths. It is suggested that the structure of the solns. of I (molecularly dispersed) and of II and V (well-developed colloidal particles) changes so little with dye concn. that absorption from solns. of varying concns. produces closely similar aggregates having substantially identical optical

properties aside from the Vogel effect. The structure of solns. of III and IV appears more labile which may lead to concn. changes exerting an influence on the nature of the adsorbed dye aggregates. At concn. much above 10^{-3} molar, the dyes studied colored the gelatin and this led to a reduction in sensitivity of the plates, especially toward the shorter wave lengths within the sensitization interval.

J. W. PERRY

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

11/20/2011 5:57 PM 21/24

SUBJECT: 44-1987-105

EXHIBIT ONE

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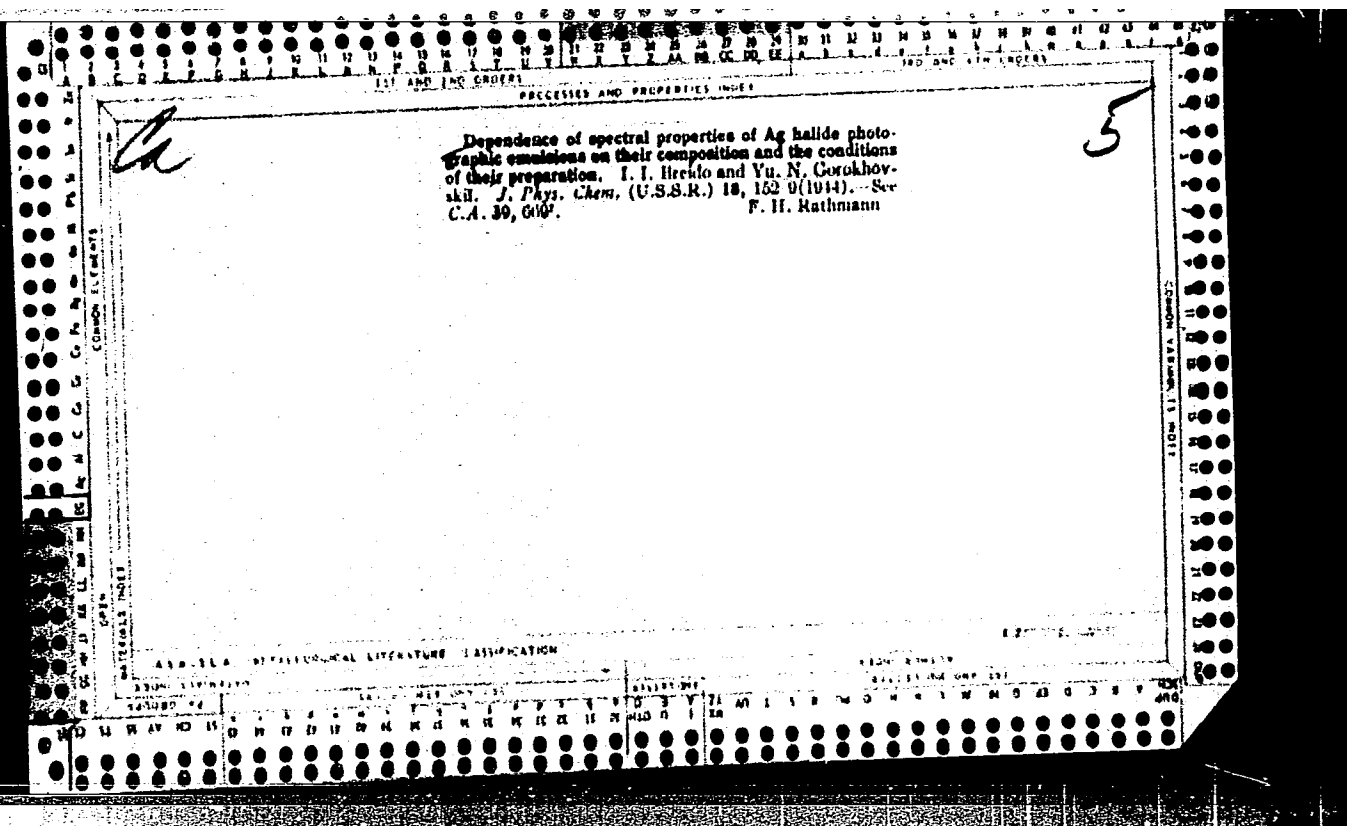
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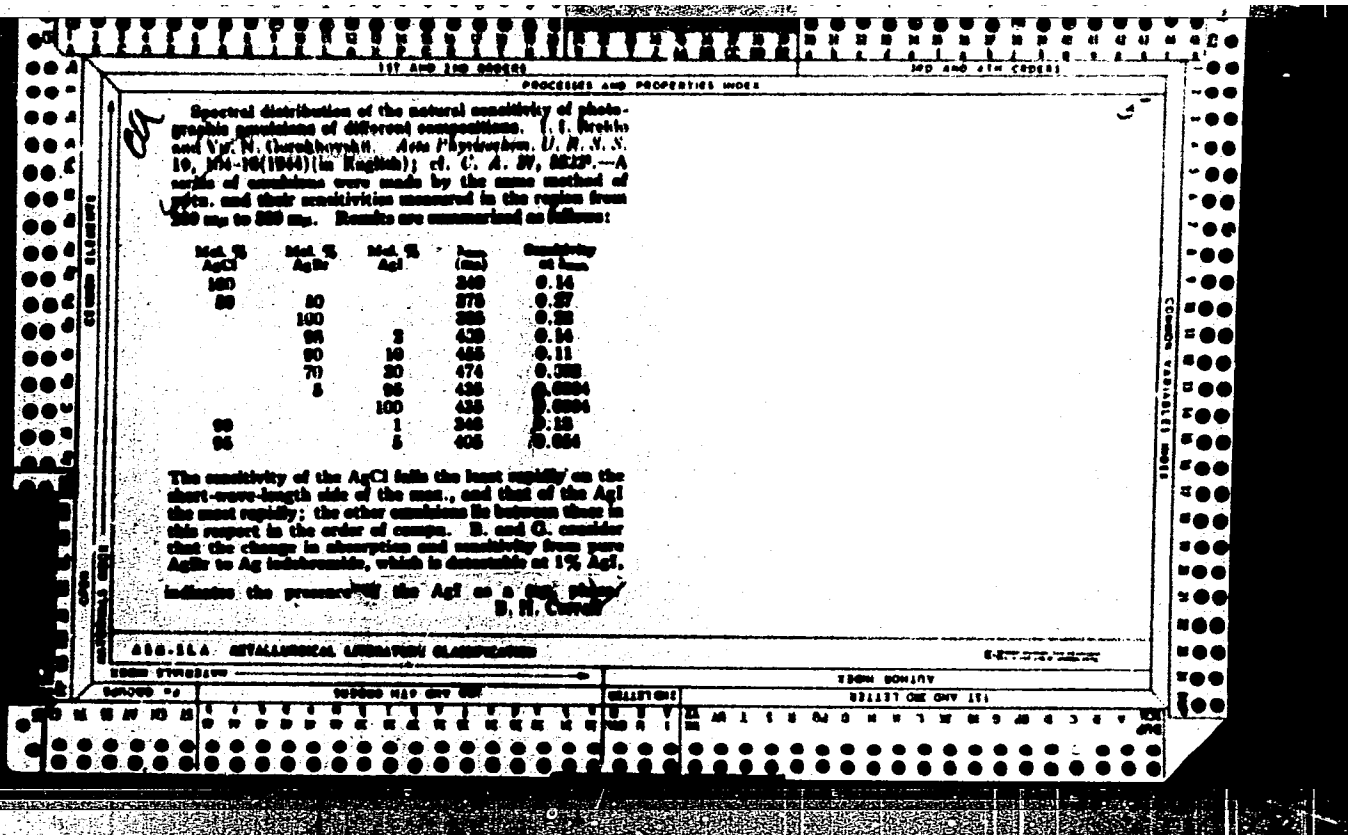
GOROKHOVSKIY, Yu. M.

"Investigation of Desensibilizing Action of Optical Sensitizers," Dok.AN,
39, No.9, 1943. Lab. Sci. Photo.; State Optical Inst.,

GOROKHOVSKIY, Yu. N.

"Influence of the temperature on the spectral distribution of the sensitivity of the photographic layers," Zhur. Tekh. Fiz., 14, No. 4-5, 1944. State Optical Inst., Lab. Scientific Photog.,





1ST AND 2ND CODES		PROCESS AND PROPERTIES INDEX	
<p>New systems of investigation of photographic materials <u>Yu. N. Gorskikh</u>, <i>J. Tech. Phys. (U.S.S.R.)</i> 16, 26-70(1946). Description of testing procedures standardized in the U.S.S.R. and designated GOST (= State All-Union Standards) 2817-45, 2818-45, and 2819-45. (1) The sensitometer of the State Opt. Inst. involves a tungsten lamp of color temp. 2850°K., 75-100 internat. candle power, const. within $\pm 2\%$; gravity shutter, exposures 0.05 sec. $\pm 0.5\%$; a blue-glass light filter, visual transmittance 0.25%, producing a spectral compn. similar to daylight up to 0.50 mμ; mean distance between light source and photographic layer 500 mm. The opening of the shutter coincides automatically with the application of a wedge, a glass plate 9 X 105 mm. coated with a graphite-gelatin emulsion of nonselective absorption at thicknesses varying by steps of 5 mm. so as to vary the transmittance of light from step to step by a factor $\sqrt{2}$; with 21 steps, the wedge provides transmittances varying approx. 1:1000. A plate 9 X 12 cm. yields 5 sensitograms. (2) Development temp. is standardized at 20° ± 0.5, stirring of the liquid relative to the sensitive layer corresponding to a relative velocity of 10-15 cm./sec. A limited no. of developing solns. are adopted for particular applications, e.g., Chibisov's metol-hydroquinone for aerial photography, Agfa-13 for negative cinematographic film, etc. (3) A modified Capstaff-Purdy densitometer is standard for the photometry of the sensitograms. (4) The optical density $D = 0.3 + D_0$</p>		<p>is provisionally adopted as criterion of light sensitivity (D_0 = density of halo). The sensitivity S is thus defined as $S = (1/H)_{D=0.3}$, where H = illumination. The standard unit of sensitivity (GOST unit) is defined as the sensitivity of a photographic material on which 1 lux-sec. is necessary to produce the optical density 0.2 + D_0. (5) Monochromatic sensitivity is defined by $S_\lambda = (1/H_\lambda)_{D=0.3}$, and is measured in sq. cm. erg.⁻¹. The standard spectrosensitometer involves a double glass prism spectrograph, focal distance of objectives 500 mm., aperture 1:6.3; illumination is controlled by a sector diaphragm. Development is prolonged until a prescribed value of the contrast coeff. is reached. (6) The standard resolviometer involves a 21.9-mm. photomicrographic objective projecting on the photographic layer groups of line patterns reduced 25 times. The proper resolving power of the objective is 250 mm.⁻¹. The resolving power of the material tested is detd. under a microscope at a magnification of 30-70. N. Thon</p>	
<p>ALB-ELA METALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>SEARCHED INDEXED</p>		<p>COLLECTED</p>	

GOROKHOVSKIY, Yu. N.

"Chronicle: A Scientific Discussion Concerning the Nature of Light Sensitivity and the Mechanism of the Formation of Latent Photographic Images." Uspekhi Fiz. Nauk, 39, No. 1, 1949.

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Nature of the spectral distribution of the proper light sensitivity of silver halide photographic layers. I. I. Brekko and Yu. N. Gorokhovskii (State Optical Inst., Leningrad). *Doklady Akad. Nauk S.S.S.R.* 68, 633-4 (1949).—In highly sensitive materials, the sensitivity S of the Ag halide in the photographic emulsion is max. at 425-450 m μ and falls rapidly in the short-wave region, while in low-sensitivity photographic materials S is max. around 400 m μ and falls but slowly in the ultraviolet. The contrast coeff. γ mostly falls with decreasing wave length, particularly in the range 320-400 m μ , but in some highly sensitive emulsions γ remains very nearly const. In the long-wave range, the variation of S parallels that of the absorption, but, in the ultraviolet, S falls while the absorption of massive Ag halide increases with decreasing wave length. The latter holds not only for the massive Ag halides, but also for AgCl, AgBr, AgI, and AgBr: AgI = 70:30, in the photographic emulsion (ratio of the lyt. spectral curves of the relative absorption (ratio of the absorbed and the incident light intensity), obtained by means of the optical d. and the reflection coeff. of thin emulsion layers. The fall of the photographic efficiency with the wave length in the short-wave range, despite the considerable increase of the absorption, can be due either to a fall of the sensitivity of the Ag halide crystals or to insufficient depth penetration of the light. The 1st assumption was tested by a comparison of S of very thin emulsions of the iso-ortho type, of a thickness corresponding to practically a single layer of grains and precluding mutual screening of the grains, and of emulsions of regular thickness. In the short-wave region, 280-320 m μ , the thin layer proved to have a very much higher relative S ; this marked difference was ascertained not to be due to an absorption by the gelatin. By microscopic examn. of cross sections of exposed emulsions, the depth of penetration of short-wave radiation, termed the "effective" thickness e of the emulsion layer, at equal optical d. D ,

proved to be smaller than the actual thickness; in particular, in 254 m μ , at $D = 1$, e was about $1/3$ of the true thickness. This depth-penetration effect plays no role in the long-wave range where absorption is small and there, consequently, S is symbatic with the absorption. In the short-wave range, the individual effective sensitivity of each grain, relative to the intensity incident on the outer surface of the layer, is detd. by its position in depth. While shallow grains may absorb many more quanta than are necessary for their development, deep-lying grains may remain practically unexposed. The further the absorption lies in the ultraviolet, the shorter will be the wave length of max. S . For the same reasons, strong absorption in the layer results in a lower γ . The effect of increased absorption on γ will be the more marked, the more homogeneous the grains are with respect to their original S , i.e. the higher γ . Conversely, a lower γ will decrease more slowly with decreasing γ . N. Thon.

GOROKHOVSKIY, YU. N. LEVENBERG, T. M.

Photographic Chemistry

Study of the grain structure of developed photographic layers. Usp.nauch. fot., No. 1, 1951

9. Monthly List of Russian Accessions, Library of Congress, June ²1953, Uncl.

GOROKHOVSKIY, Yu. N.

"Conference on Color Photography and Cinematography," Uspekhi Fiz. Nauk, 43,
No. 2, 1951.

GOROKHOVSKII, Iu. N.

Gorokhovskii, Iu. N., Meiklier, P. V., Savost'ianova, M. V., Toporets, A. S.,
75 years since the birth of T. P. Kravets. P. 301.

SO: Progress in the Physical Sciences, Vol. XLIV, No. 2, June 1951, (Uspekhi)